AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) A method for measuring radiation from an object with a charge coupled device comprising a matrix of pixels arranged in rows and columns, wherein at least one pixel is defected, in which method

- the radiation creates charges to the charge wells of the pixels,

- charges from a column of the pixels is shifted to a serial register,

- the charges in a serial register are shifted to an output charge well,

- the charge is measured from the output charge well and

- charges from at least two pixels are accumulated into the output charge well,

characterised in that the pixels whose charges are accumulated are determined on the basis of the position(s) of said at least one defected pixel.

2. (original) A method according to claim 1, characterised in that the charge value of the output node is read

when charges of distorted value enter the charge well of the serial register, which is closest to the output node.

3. (original) A method according to claim 1, characterised in that charges from the serial register are shifted to the output node when charge from a defected pixel enters the pixel column of the parallel register, which is closest the serial register.

4. (original) A method according to claim 1, characterised in that such charge values of the output node are ignored, which are distorted by at least one defected pixel.

5. (original) A method according to claim 1, characterised in that the pixels that are accumulated and measured include all pixels the charges of which are not distorted by defected pixels in the readout process.

6. (original) A method according to claim 1, characterised in that the groups of pixels whose charges are accumulated as super pixels are determined by the steps of:

- dividing the pixels into rectangular areas of same size,

- when none of charges in a group of pixels within one rectangular area is distorted in the readout process by a defected pixel, said group of pixels are accumulated as a super pixel,

- when any charges in a group of pixels within one rectangular area is distorted in the readout process by a defected pixel at least one subset group of pixels is formed wherein none of charges in the subset group of pixels within said rectangular area is distorted in the readout process by a defected pixel said subset group of pixels being accumulated as a super pixel.

7. (original) A method according to claim 1, characterised in that the charge coupled device is scanned and the defected pixels are located by said scanning.

8. (original) Use of a method according to claim 1 for measuring radiation from a sample on a well plate.

9. (original) An arrangement for measuring radiation comprising a charge coupled device with a matrix of charge wells arranged in rows and columns of pixels, wherein at least one of said pixels is defected, the arrangement also comprising

- a serial register for receiving charges from a column of the parallel register pixels,

- output well for receiving charges from the serial register,

- means for measuring the charge from the output well, and

- means for accumulating charges from at least two pixels,

characterised in that the arrangement further comprises means for determining the accumulated pixels on the basis of the position(s) of said at least one defected pixel.

10. (original) An arrangement according to claim 9, characterised in that it comprises means for initiating reading the charge value of the output node is when charges with distorted value enter the charge well of the serial register, which is closest to the output node.

11. (original) An arrangement according to claim 9, characterised in that it comprises means for initiating shifting the charges from the serial register to the output node when charge from a defected pixel enters the pixel column of the parallel register, which is closest to the serial register.

12. (original) An arrangement according to claim 9, characterised in that it comprises means for ignoring such charge values of the output node, which are distorted by at least one defected pixel.

13. (original) An arrangement according to claim 9, characterised in that it comprises means for determining the groups of pixels that are selected to be accumulated and measured

to include all pixels the charges of which are not distorted by defected pixels in the readout process.

14. (original) An arrangement according to claim 9, characterised in that the means for determining the groups of pixels whose charges are accumulated as super pixels comprise:

- means for dividing the pixels into rectangular areas of same size (A1, A2,...E5),

- means for accumulating a group of pixels as a super pixel when none of charges in said group of pixels within one said rectangular area is distorted in the readout process by a defected pixel, and

- means for detecting when any value of charges in a group of pixels within one rectangular area is distorted in the readout process by a defected pixel (B2-E2, C4-E4) and means for forming at least one subset group of pixels (B2i-E2i, B2k-E2k, C4i-E4i) wherein none of charges in the subset group of pixels within said rectangular area is distorted in the readout process by a defected pixel and means for accumulating said subset group of pixels as a super pixel.

15. (original) An arrangement according to claim 9, characterised in that it comprises means for measuring radiation from a sample on a well plate.

16. (new) A method for measuring radiation from an object, with a charge coupled device comprising a matrix of pixels arranged in rows and columns, wherein at least one pixel is defected, in which method

- the radiation creates charges to the charge wells of the pixels,

- charges from a column of the pixels are shifted to a serial register,

- the charges in a serial register are shifted to an output charge well,

- the charge is measured from the output charge well, and

- charges from at least two pixels are accumulated into the output charge well, wherein, the pixels whose charges are accumulated are determined on the basis of the position(s) of said at least one defected pixel so that defective pixel values do not propagate beyond the output charge well.

17. (new) A method according to claim 16, characterised in that the charge value of the output node is read when charges of distorted value enter the charge well of the serial register, which is closest to the output node.

18. (new) A method according to claim 16, characterised in that charges from the serial register are shifted to the output node when charge from a defected pixel enters the pixel

column of the parallel register, which is closest the serial register.

19. (new) A method according to claim 16, characterised in that such charge values of the output node are ignored, which are distorted by at least one defected pixel.

20. (new) A method according to claim 16, characterised in that the pixels that are accumulated and measured include all pixels the charges of which are not distorted by defected pixels in the readout process.